Farallon®

PhoneNET PC and Windows for Workgroups

Installation & Troubleshooting Supplement

Reader Please Note

This supplement is intended for persons who are or will be using PhoneNET PC 3.1 in combination with Microsoft Windows for Workgroups 3.11. If you are not using Windows for Workgroups, you can disregard this document.

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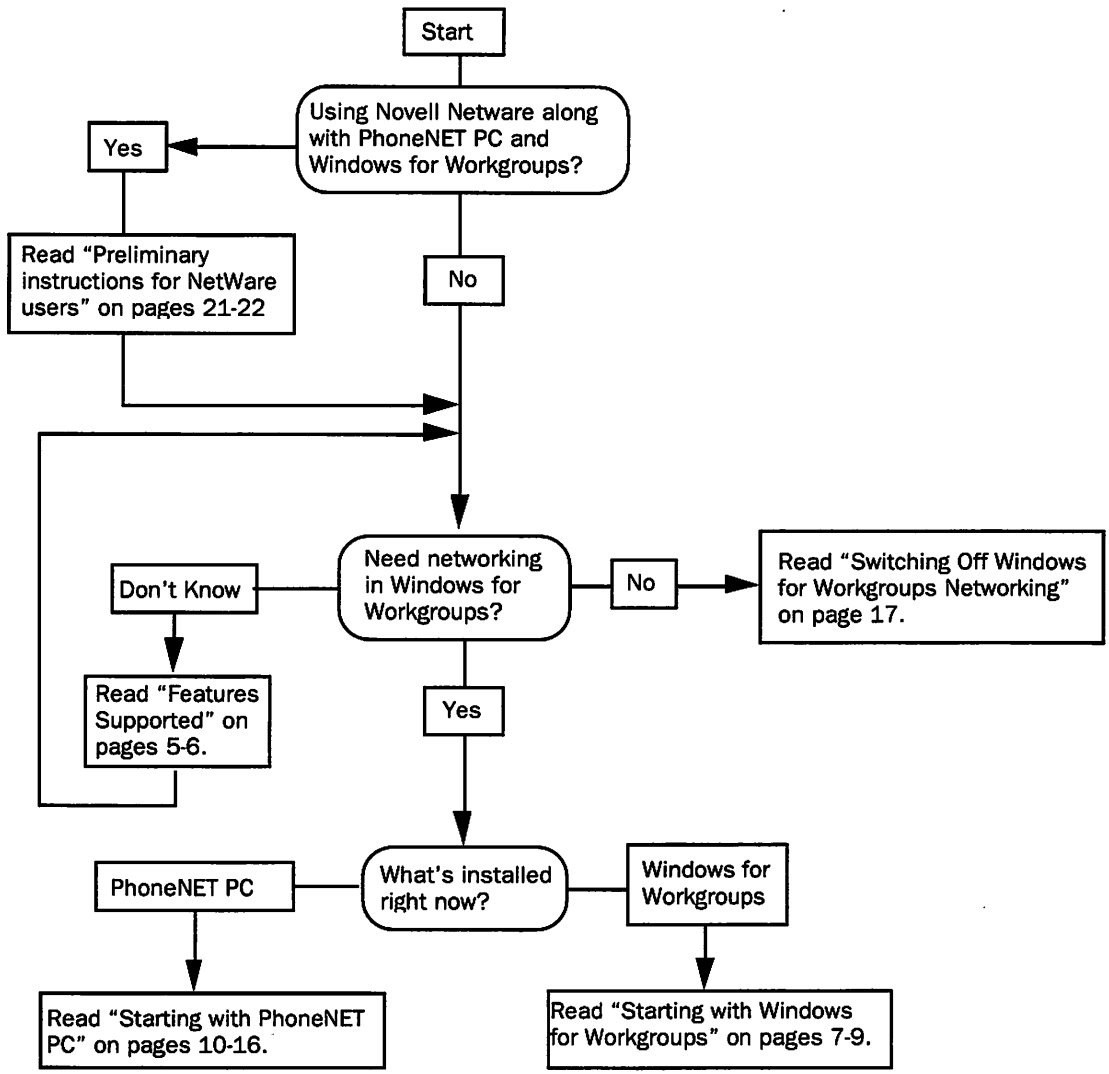
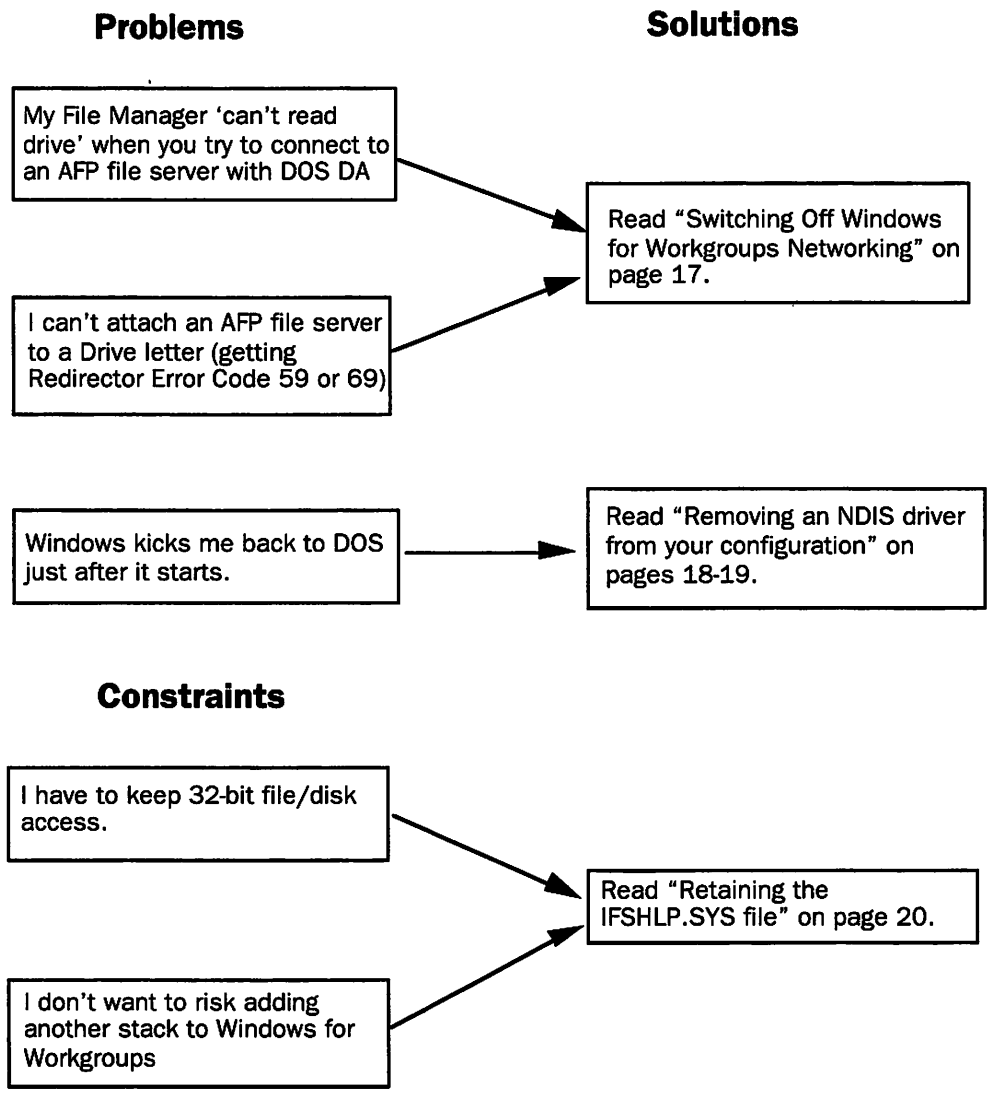
If you're installing PhoneNET PC for the first time, use the flowchart below in conjunction with this supplement to plan your installation steps.


Start
Using Novell Netware along with PhoneNET PC and Windows for Workgroups?
Yes
Read "Preliminary instructions for NetWare users" on pages 21-22
No
Need networking in Windows for Workgroups?
Don't Know
Read "Features Supported" on pages 5-6.
No
Read "Switching Off Windows for Workgroups Networking" on page 17.
Yes
What's installed right now?
PhoneNET PC
Read "Starting with PhoneNET PC" on pages 10-16.
Windows for Workgroups
Read "Starting with Windows for Workgroups" on pages 7-9.

If you've already installed PhoneNET PC and are having problems, use the chart below to find the most workable solution. All references are to pages in this supplement.


Problems
Solutions
My File Manager 'can't read drive' when you try to connect to an AFP file server with DOS DA
Read "Switching Off Windows for Workgroups Networking" on page 17.
I can't attach an AFP file server to a Drive letter (getting Redirector Error Code 59 or 69)
Windows kicks me back to DOS just after it starts.
Read "Removing an NDIS driver from your configuration" on pages 18-19.
Constraints
I have to keep 32-bit file/disk access.
Read "Retaining the IFSHLP.SYS file" on page 20.
I don't want to risk adding another stack to Windows for Workgroups

How to use this supplement

Although this supplement contains several installation procedures, there is only one that is right for you.

If you need to know which Windows for Workgroups features and which DOS features are available when you also have PhoneNET PC installed, see the following section of this supplement, "Features Supported." Then return to this page to choose the procedure that is appropriate for your needs.

- If you need to remain connected to other Windows for Workgroups 3.11 users, your system must have the networking component of Windows for Workgroups. Skip to the section titled "Working with Networking in Windows for Workgroups" for further instructions.
- If you have installed PhoneNET PC and have discovered that you cannot access an AFP file server through the Chooser ("Redirector Error Code 59 or 69") or File Manager ("Can't Read Drive"), you may have a conflict with Windows for Workgroups. Skip to the section titled "Switching Off Windows for Workgroups Networking" for further instructions.
- If you have already installed PhoneNET PC and find that as soon as Windows tries to start, you are abruptly returned to the DOS command line, skip to the section titled "Removing an NDIS Driver from your Configuration."
- If you are also running Novell Netware, you will be using networking, but you will have to add some extra steps. Proceed to "Instructions for Netware Users" near the end of this document.

Features supported

This section explains which networking features are available in Windows and in DOS when PhoneNET PC and Windows for Workgroups are both installed on your system.

Windows features supported

PhoneNET PC 3.1 is partially compatible with Windows for Workgroups 3.11. Windows for Workgroups requires an Ethernet or Token Ring network adapter. It does not work with LocalTalk network adapters. The following table shows the features available in Windows for Workgroups, depending on your choice of Windows network driver.

Features supported within Windows for Workgroups	**PNTALK.DRV***	**WFWNET.DRV†**
support for Timbuktu for Windows	√	√
printing to networked AppleTalk printers	√	
access to AFP servers		
access to NetWare servers (using NetWare client software)	√	√
access to Windows for Workgroups servers		√
access to LanMan servers		√
access to Windows NT servers		√

*The PhoneNET PC network driver

†The standard network for Windows for Workgroups

Note: Using PNTALK.DRV (the PhoneNET PC network driver) prevents access to Windows for Workgroups servers and to some other types of servers.

DOS features supported

PhoneNET PC can also provide services from DOS. The following table shows the features that are available and which PhoneNET PC batch files to use to obtain them. Note the special conditions that apply when you use AFILES.BAT or ABOTH.BAT.

Features available in DOS	APRNT.BAT	AFILES.BAT	ABOTH.BAT	Special conditions
printing to networked Apple LaserWriter or ImageWriter II printers	√		√	Do not enter Windows for Workgroups after running AFILES. BAT or ABOTH.BAT since doing so may cause your system to hang. To regain access to Windows for Workgroups, reboot without loading AFP file server support.
access to AFP file servers		√	√	

Working with Networking in Windows for Workgroups

You have Windows for Workgroups 3.11 installed on your computer and will be using PhoneNET PC because you need access to AppleTalk services. You also need to remain connected to other Windows for Workgroups 3.11 users, which requires the networking component of Windows for Workgroups.

Getting PhoneNET PC and Windows for Workgroups to work together depends on which product is installed first.

- If your PC already has Windows for Workgroups installed but does not yet have PhoneNET PC installed, proceed to "Starting With Windows for Workgroups," which begins below.
- If PhoneNET PC is already loaded on your PC but Windows for Workgroups has not yet been loaded, skip to "Starting with PhoneNET PC" for further instructions.

Starting with Windows for Workgroups

The following procedure takes you through three phases: modifying your installation instructions, modifying your network setup, and editing your .BAT files.

Modifying your installation instructions

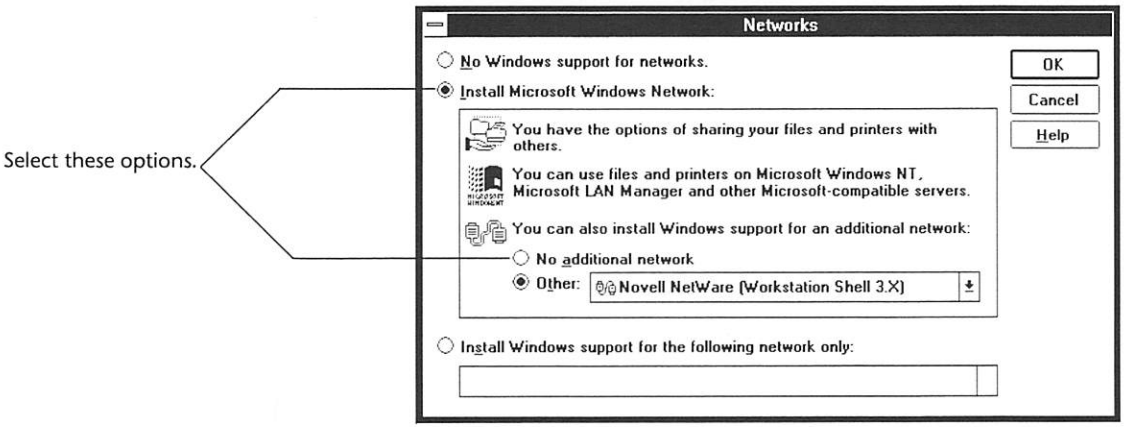
1. Install PhoneNET PC as described in Chapter 2 of the *PhoneNET PC User's Guide,* with the following exception: when the Load at Startup option is displayed, select No.
2. If you are installing Windows support for PhoneNET PC and your Windows For Workgroups network driver is installed, you will see the following message:

   ```
   The following Windows network driver is
   currently installed:
   Microsoft Windows Network (version 3.11)
   Would you like to replace it with the new
   PhoneNET PC network driver?
   ```

   To determine which driver to install, refer to the table on page 5.

Modifying your network setup

1. Go to the Network program group in Windows for Workgroups and open NetWork Setup.
2. Click the NetWorks button.


Select these options.
Networks
No Windows support for networks.
Install Microsoft Windows Network:
You have the options of sharing your files and printers with others.
You can use files and printers on Microsoft Windows NT, Microsoft LAN Manager and other Microsoft-compatible servers.
You can also install Windows support for an additional network:
No additional network
Other:
Novell NetWare (Workstation Shell 3.X)
Install Windows support for the following network only:
OK
Cancel
Help

3. In the NetWorks dialog box, select Install Microsoft Windows Network. Further down in the window, select No Additional Network. Then click OK to return to the Network Setup dialog box.
4. Click the Drivers button.
5. In the Drivers dialog box, click Add Adapter.
6. Select your adapter card from the Add Network Adapter list. If your adapter is not listed, select an adapter whose driver can be used by your adapter.
7. Click OK. You may be asked to confirm the configuration settings used by your adapter.
8. Click the Setup button.
9. Select ODI driver from the Driver Type list. You should then see the name of your network adapter driver in the list box, followed by [ODI/NDIS3].

10. Click OK to exit from the driver information dialog box.
11. Click OK to exit from the Network Setup dialog box.

Editing the .BAT files

1. Edit your AUTOEXEC.BAT file to include **one** of the following lines before NET START and ODIHLP.EXE:

   ```
   CALL C:\PHONENET\PHONENET.BAT
   ```

   or

   ```
   CALL C:\PHONENET\APRINT.BAT
   ```

   Which line should you add?

   - If you don't need DOS printing, use the PHONENET.BAT file.
   - If you do need DOS printing, use the APRNT.BAT file.

   Caution: Don't use ABOTH.BAT or AFILES.BAT. They may cause your system to hang when you attempt to run Windows for Workgroups.

2. Restart your computer.

Starting with PhoneNET PC

If you have already installed PhoneNET PC and you're installing or updating to Windows For Workgroups 3.11 with networking, follow this procedure. It takes you through four phases: temporarily disabling PhoneNET PC; installing Windows for Workgroups, selecting the ODI driver, and re-enabling PhoneNET PC.

Temporarily disabling PhoneNET PC

1. Use a text editor to open your AUTOEXEC.BAT file and comment out any call statement to a PhoneNET PC batch file as shown below:

Original call statement	Change to
`CALL C:\PHONENET\ABOTH.BAT`	`REM CALL C:\PHONENET\ABOTH.BAT`
`CALL C:\PHONENET\AFILES.BAT`	`REM CALL C:\PHONENET\AFILES.BAT`
`CALL C:\PHONENET\APRNT.BAT`	`REM CALL C:\PHONENET\APRNT.BAT`
`CALL C:\PHONENET\PHONENET.BAT`	`REM CALL C:\PHONENET\PHONENET.BAT`

2. Restart your computer. This removes PhoneNET PC from memory.

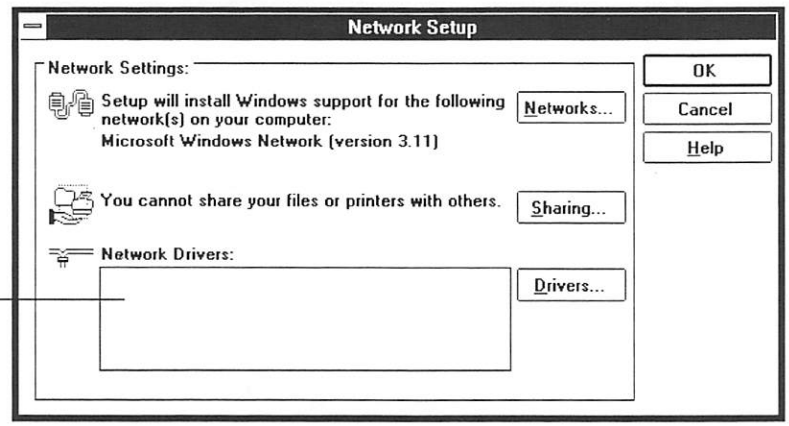
Caution: If you install Windows for Workgroups without restarting, you may experience a system crash and have to reinstall Windows, Windows for Workgroups, and PhoneNET PC.

Installing Windows for Workgroups

Install Windows for Workgroups following the installation instructions that accompany that product and make sure that you can connect to other Windows for Workgroups users.

Configuring your network driver

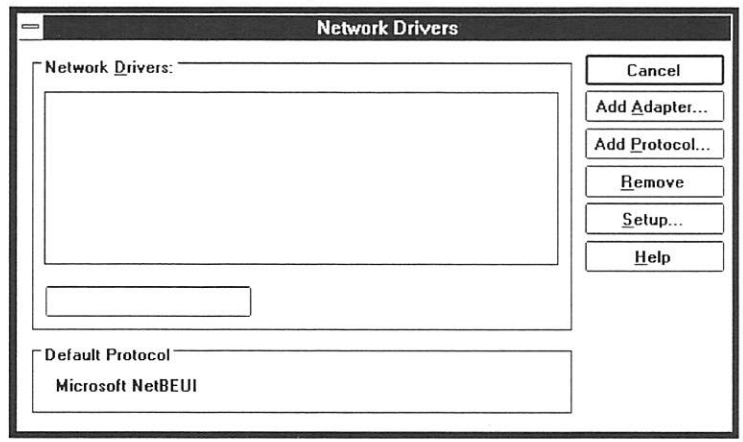
Is your network driver already selected and configured? If you aren't sure, go to the Network program group in Windows for Workgroups and open Network Setup:



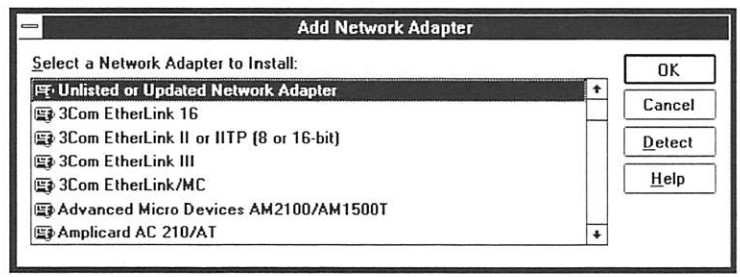
- If your network driver has already been selected and configured, it will be displayed in the Network Driver box. In that case, skip to the section titled "Selecting the ODI Driver."
- If your network driver has not been configured, the Network Driver box will be empty, and you'll need to continue with the procedure on the following page to select and configure the driver.

Selecting and configuring your network driver

1. Click the Drivers button.



2. Click the Add Adapter button.

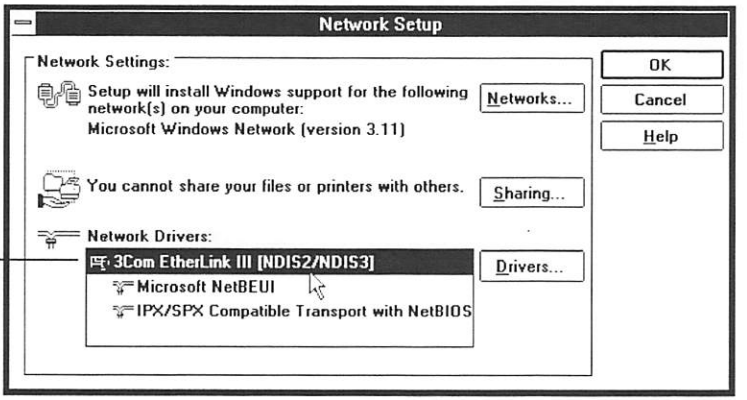


3. Select your adapter card from the Add Network Adapter list. If your adapter is not listed, select an adapter whose driver can be used by your adapter.
4. Click OK. You may be asked to confirm the configuration settings used by your adapter.
5. When the Network Drivers dialog box is displayed, click Close.
6. Continue directly to the following procedure to select the ODI driver.

Selecting the ODI driver

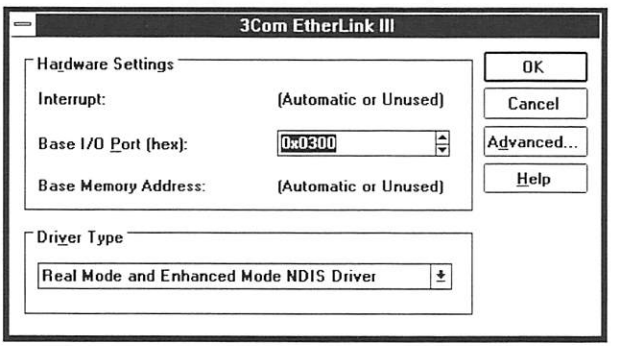
In this section you'll be installing a network driver that lets PhoneNET PC and Windows for Workgroups work together.

1. Go to the Network program group in Windows for Workgroups and open NetWork Setup.

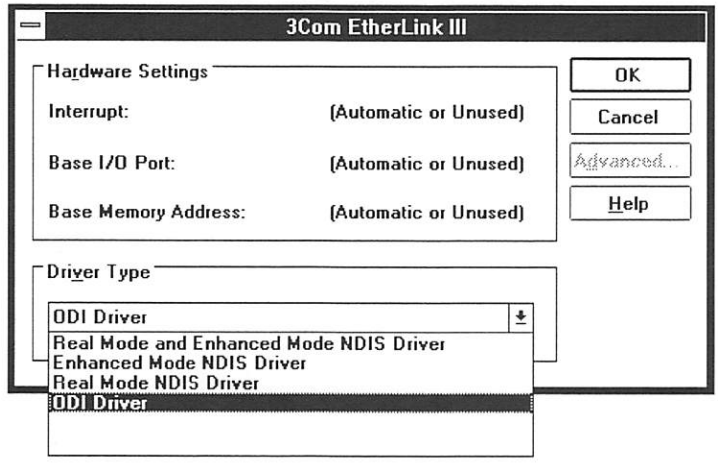


You'll see the name of your currently installed network driver. In the illustration above, the driver is called "3Com EtherLink III [NDIS2/NDIS3]." Your driver may have a different name.

2. Double-click the driver name to display the information for the network card:

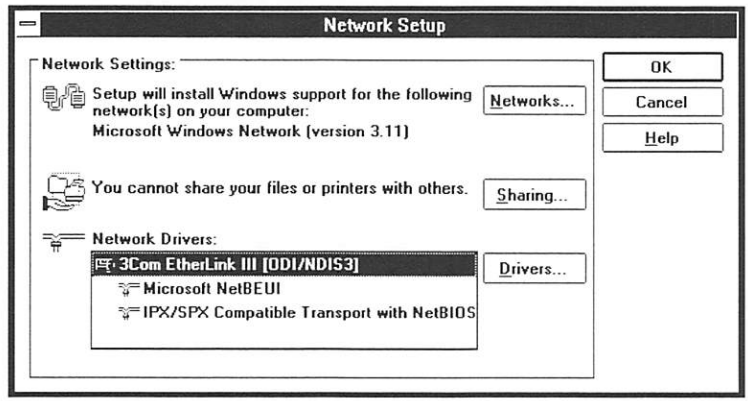


3. Click the Driver Type pop-up menu and select ODI driver:



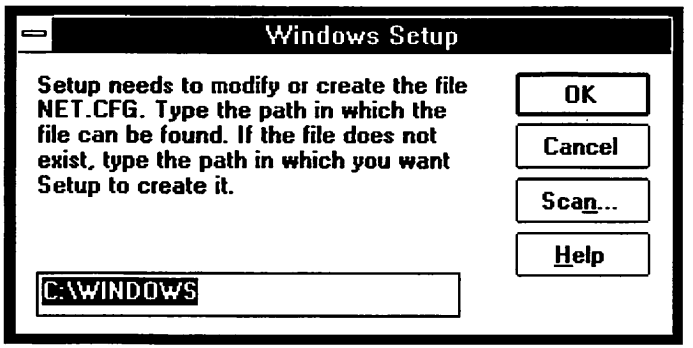
4. Click OK to exit the driver information dialog box.

   You'll now see the name of your network adapter driver, followed by [ODI/NDIS3], in the Network Driver box:



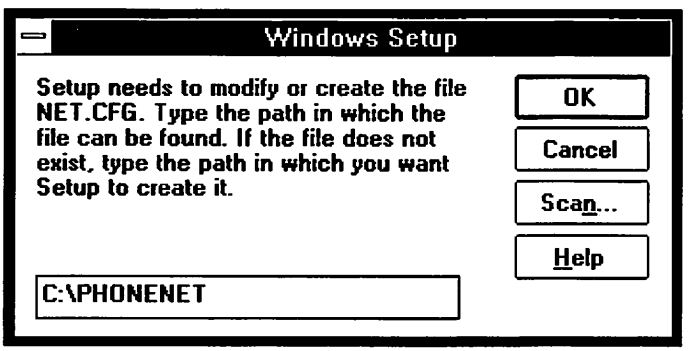
5. Click OK to exit the Network Setup dialog box.

6. Windows now takes a few seconds to update files. When prompted for information, enter the answers that are appropriate for your system until the following message is displayed:


Windows Setup
Setup needs to modify or create the file NET.CFG. Type the path in which the file can be found. If the file does not exist, type the path in which you want Setup to create it.
C:\WINDOWS
OK
Cancel
Scan...
Help

It's very important that you change the path to the NET.CFG file before clicking OK.

7. In the Path box, type C:\PHONENET:


Windows Setup
Setup needs to modify or create the file NET.CFG. Type the path in which the file can be found. If the file does not exist, type the path in which you want Setup to create it.
C:\PHONENET
OK
Cancel
Scan...
Help

8. Now click OK.

Setup modifies the NET.CFG in the PhoneNET directory and completes the updating procedure. It then asks if you want to restart your computer or remain in WIndows.

Don't restart your computer yet. You'll need to edit two files first, as explained on the following page.

Editing SYSTEM.INI and re-enabling PhoneNET PC

1. If you wish to print to AppleTalk printers from inside Windows for Workgroups, edit your SYSTEM.INI file and set NETWORK.DRV=PNTALK.DRV.

   Note: This will prevent you from accessing Windows for Workgroups servers, LanMan servers, and Windows NT servers.

2. Edit AUTOEXEC.BAT and remove the comment "REM' that you added to the line calling PhoneNET PC in the first procedure of this section. Also make sure that the line below appears before the lines calling NET START and ODIHLP.EXE.

   - If you need DOS printing, call the APRNT.BAT file:

     ```
     CALL C:\PHONENET\APRNT.BAT
     ```

   - If you don't need DOS printing, call the PHONENET.BAT file:

     ```
     CALL C:\PHONENET\PHONENET.BAT
     ```

   Caution: Don't use ABOTH.BAT or AFILES.BAT — they may hang your system when you attempt to enter Windows for Workgroups.

3. Restart your computer.

Switching Off Windows for Workgroups Networking

Use this procedure if you have already installed PhoneNET PC and either of the following problems has occurred:

- You have used the Chooser in Windows to connect to an AFP (AppleShare) file server, but when you tried to attach the server to a drive letter, Windows displayed a Redirector Error Code 59 or 69.
- You were able to use DOS DA to connect to an AFP (AppleShare) file server, but when you started Windows, opened the File Manager, and clicked the new drive letter, the message "Can't Read Drive" was displayed.

To get PhoneNET PC and Windows for Workgroups working together so that you can connect to AFP file servers, you'll need to prevent the IFSHLP.SYS file from loading.

The IFSHLP.SYS file is required by Windows 3.11 to run 32-bit file and/or disk access and also to make possible the networking mode of Windows for Workgroups. Unfortunately, it is also the file that interferes with your ability to access AFP (AppleShare) file servers.

If you need to keep either 32-bit disk/file access or networking in Windows for Workgroups available, skip to the section titled "Retaining the IFSHLP.SYS file," and don't follow the instructions below.

If you are willing to do without 32-bit disk and/or file access and also do without networking in Windows for Workgroups, you can solve the file server problem by following these steps:

1. Using any DOS text editor, open the CONFIG.SYS file and change the following line

   ```
   DEVICE=C:\WINDOWS\IFSHLP.SYS
   ```

   so it looks like this:

   ```
   REM DEVICE=C:\WINDOWS\IFSHLP.SYS
   ```

   This will cause Windows for Workgroups 3.11 to behave as if it were Windows 3.1, with which PhoneNET PC is fully compatible.

2. Restart your computer.

Removing an NDIS driver from your configuration

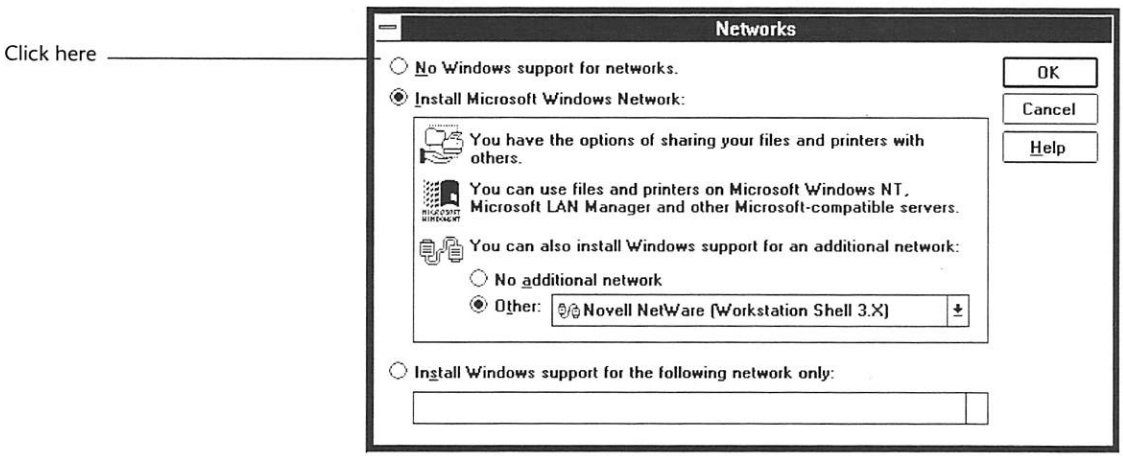
Use this procedure if you have already installed PhoneNET PC and found that as soon as Windows tries to start, you are abruptly returned to the DOS command line with a message that Windows was unable to load or configure certain files.

This problem usually indicates that an NDIS driver or an ODI\NDIS3 driver was selected in your Network Setup dialog box, even though you didn't intend to use networking in Windows for Workgroups.

You'll need to reconfigure your network setup with the following procedure.

1. Start Windows for Workgroups.
2. When you are returned to the DOS command line, type WIN and press Return.
3. If you get any error messages before going into Windows for Workgroups, you can bypass them by pressing the Space Bar to continue.
4. If a dialog box tells you that "Windows for Workgroups network was not started," click OK to display the Program Manager.
5. Double-click Network Setup in the Network Program group.

6. In the Network Setup window, click the Networks button.
7. In the Networks window, select No Windows Support For Networks and then click OK.


Click here
Networks
No Windows support for networks.
Install Microsoft Windows Network:
You have the options of sharing your files and printers with others.
You can use files and printers on Microsoft Windows NT, Microsoft LAN Manager and other Microsoft-compatible servers.
You can also install Windows support for an additional network:
No additional network
Other:
Novell NetWare (Workstation Shell 3.X)
Install Windows support for the following network only:
OK
Cancel
Help

Windows for Workgroups makes all the necessary changes to the AUTOEXEC.BAT, CONFIG.SYS, NET.CFG, SYSTEM.INI, and PROTOCOL.INI files.

8. When Windows for Workgroups asks if you want to restart, click Restart Your Computer.
9. Using any DOS text editor, open the CONFIG.SYS file and change the following line

   ```
   DEVICE=C:\WINDOWS\IFSHLP.SYS
   ```

   so it looks like this:

   ```
   REM DEVICE=C:\WINDOWS\IFSHLP.SYS
   ```

   This will cause Windows for Workgroups 3.11 to behave as if it were Windows 3.1, with which PhoneNET PC is fully compatible.
10. Restart your computer again.

Retaining the IFSHLP.SYS file

You may not want to alter Windows for Workgroups for the following reasons:

- You want to use the 32-bit file and/or disk access component.
- You have other protocols running, such as the TCP/IP stack or NetWare, and may not want to risk adding another stack to Windows for Workgroups.

If you are running DOS 6.x, you can use the following procedure to set up parallel copies of Windows on your computer.

1. Install Windows 3.1 on your system (in addition to Workgroups for Windows).

   If you don't have access to Windows 3.1, you can also install an additional copy of Windows for Workgroups and switch off networking by following steps 1 and 2 on page 17.

2. Install PhoneNET PC into the directory of the non-networked version of Windows.

3. Configure the system with a DOS 6.x multiple boot startup menu.

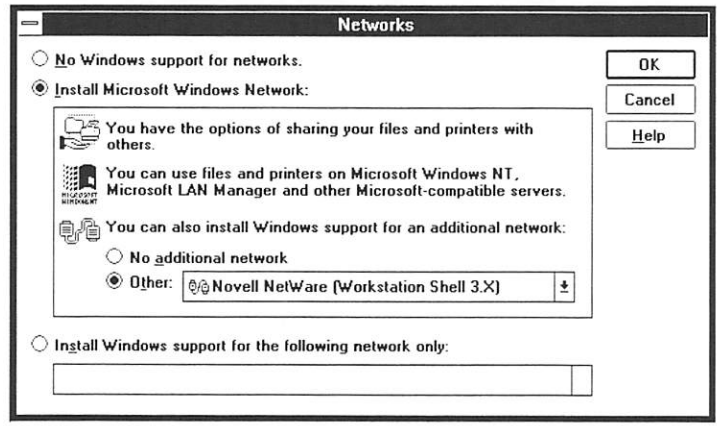
   PhoneNET PC can now be loaded and used with the non-networked version of Windows without compromising the Windows for Workgroups 32-bit file/disk access or networking functions.

Preliminary instructions for NetWare users

Follow the NetWare custom installation tips in Chapters 3 of the *PhoneNET PC User's Guide*. You may also need to consult a section in your *PhoneNET PC 3.1 Release Notes* titled "Installing and Using PhoneNET PC with Netware 3.12 or Netware 4.0."

The user does a WFW install and comes back to the instructions below? Check all to make sure they work independently.

1. Go to the Network program group in Windows for Workgroups and open Network Setup.
2. Click the Networks button to display the following dialog box:


Networks
No Windows support for networks.
Install Microsoft Windows Network:
You have the options of sharing your files and printers with others.
You can use files and printers on Microsoft Windows NT, Microsoft LAN Manager and other Microsoft-compatible servers.
You can also install Windows support for an additional network:
No additional network
Other:
Novell NetWare (Workstation Shell 3.X)
Install Windows support for the following network only:
OK
Cancel
Help

3. Select Install MS Windows Network. Then select Other at the bottom of the interior frame and click OK.
4. Choose Windows Support for an Additional Network from the pull-down menu.
5. Select either Novell NetWare (Workstation Shell 3.x) or Novell NetWare (Workstation Shell 4.0 and above), and click OK.
6. Select Novell NetWare IPXODI.COM & LSL.COM Recommended and click OK.

7. Click OK until you are prompted to specify the locations of various NetWare files, such as NETWARE.DRV, NWPOPUP.EXE, and VNETWARE.38. Specify the file locations.

   Note: If you previously used NetWare with Windows for Workgroups 3.1, NETWARE.DRV may be in your Windows for Workgroups 3.1 directory.

8. You are asked to specify the location of your NET.CFG file. This should be located in your PhoneNET PC directory.

9. Restart your computer.

Windows for Workgroups and LocalTalk

Windows for Workgroups does not support LocalTalk interface cards. You can't use the Timbuktu for Windows PhoneNET Kit and Windows for Workgroups with the network feature turned on.

This doesn't mean you should remove your LocalTalk card. It may still prove useful for printing and Timbuktu features. To use a LocalTalk card, you must first disable the Windows for Workgroups network support using the instructions on page 17.

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